Table IV

Test station					Firing area	
Communication console	Propulsion and electrical console	Stabilizer and steering console	Range console	Lateral and program console	Firing section	Servicing section Electrical and pneumatic
	HORIZONTAL POWER PLANT COMPONENTS TEST IT IS REQUIRED THAT THE CONTROL OPERATOR ANNOUNCE EACH STEP PRIOR TO PERFORMING THE STEP AND EACH STATION REPORT OPERATION OF VALVE WHEN APPLICABLE. THE INDICATION OF A VALVE OPERATING WILL BE AUDIBLE AND/OR VISUAL. BEFORE STARTING TEST, INSURE THAT BLIND PLUG P4017 IS INSTALLED IN THE MISSILE. 3. Insure that Sequence Recorder is ready for operation. 4. Insure that the Operation Selector Switch is in the Test position (PP).	WARHEAD CONTINUITY CHECK FOR ANY DIVIATION IN THE FOLLOWING, PLACE SELECTOR SWITCH ON THE CM PANEL TO WARHEAD SAFE AND NOTIFY OFFICER IN CHARGE. ALL THE FOLLOWING OPERATIONS AND INDICATIONS OCCUR ON THE G&M PANEL 1. Verify normal indication. a. Warhead Safe lamps On. b. Burst Option Selector in air position (Fully counterclockwise). 2. Turn Power switch On. a. Warhead Safe lamps remain On. b. Power lamps On. c. Air lamps On. 3. Turn selector switch to Warhead Continuity. a. Power lamps remain On. b. Air lamps remain On. c. Warhead Safe lamps remain On. d. Warhead Continuity lamps On.	RANGE COMPUTER TEST ALL STEPS AND INDICATIONS ARE ON THE RANGE CONTROL PANEL UNLESS OTHERWISE NOTED. FOR OPERATION OF RANGE COMPUTER REFER TO TM 9-1430-350-14/1, TEST STATION, GUIDED MISSILE, TRUCK MOUNTED. 1. Depress 400 cps Power On pushbutton. a. 400 cps Power On lamp On. b. 400 cps Power Off lamp Off. 2. Zero computer. 3. Set L bias pot to read 625. 4. Set M bias pot to read 387. 5. Dial position 6. a. Indicator 6 (L) lamp On. 6. Depress Set pushbutton and release. 7. Depress Adjustment Test pushbutton when Adjustment meter indicates approximately zero. 8. Release Adjustment Test pushbutton when Adjustment meter indicates zero.	SEQUENCE RECORDER OPERATION 1. Prepare Sequence Recorder for operation for the Horizontal Power Plant Components Test by placing the Minute Speed switch to the Minute position (down). 2. Upon completion of test, return Minute Speed switch to the Hour position (up) and remove used chart paper from Recorder. 3. Install chart paper and leave sequence recorder in its present condition if tests are to be continued. To turn Recorder Off, follow reverse procedure for turning On. LATERAL COMPUTER TEST ALL STEPS AND INDICATIONS ARE ON THE LATERAL CONTROL PANEL UNLESS OTHERWISE NOTED. FOR OPERATION AND SLEWING INSTRUCTIONS OF LATERAL COMPUTER, REFER TO TM 9-1430-350-14/1, TEST STATION, GUIDED MISSILE, TRUCK MOUNTED.	HORIZONTAL POWER PLANT COMPONENTS TEST THIS TEST REQUIRES PERSONNEL AT THE FOLLOWING STATIONS: a. VALVE BOX. b. AFT END OF MISSILE. c. FORWARD END OF THE MISSILE. d. REMOTE FIRING PANEL. e. AIR SERVICER. INSTALL BLIND PLUG P4017 IN THE MISSILE BEFORE STARTING THE TEST. 1. Disconnect P-3221 from J-3221 inside of relay box. 2. Close Purge and Igniter valve on valve box.	THRUST CONTROLLER TEST 1. Insure that all switches are OFF and that all valves are closed on the thrust controller box. 2. Connect P-1 of the thrust controller test cable to J-1 on the thrust controller test box. Connect the other end of the cable to J-4014 on the tail distributor. 3. Insure that P-4005 is connected to the tail distributor. 4. Remove P-5092 from thrust controller Servo Valve. 5. Connect P-2 of the thrust controller test cable to J-2 on the thrust controller test box. Connect the other end of the cable to J-5092 on the thrust controller servo valve. 6. Connect P-5001 at the thrust controller computer. Insure that P-5003 from the missile harness is also connected.

Table IV—Continued

Test station					Firing area	
						Servicing section
Communication console	Propulsion and electrical console	Stabilizer and steering console	Range console	Lateral and program console	Firing section	Electrical and pneumatic
	HORIZONTAL POWER PLANT COMPONENTS TEST—Continued	WARHEAD CONTINUITY CHECK—Continued	RANGE COMPUTER TEST—Continued	LATERAL COMPUTER TEST—Continued	HORIZONTAL POWER PLANT COMPONENTS TEST—Continued	THRUST CONTROLLER TEST—Con.
	5. Rotate Valve Test Selector switch to Igniter Valve position (TP). INSURE THAT THE COMBUSTION COVER AND THE DESICCANTS HAVE BEEN REMOVED. 6. Depress the test pushbutton (for approximately 30 seconds) then release, after verification that air has stopped venting through combustion chamber. a. Test Power On lamp lights, then goes Off (TP). b. Igniter ALC Flow lamp On, then Off (PP). 8. Rotate Valve Test Selector LOX Vent Valve position (TP). 9. Depress Test pushbutton for 4 seconds (TP). Test power lamp lights and then goes off (TP).	4. Turn Selector switch to S&A Continuity. a. Power lamps remain On. b. Air lamps remain On. c. Warhead Safe lamps remain On. d. Warhead Continuity lamps remain On. e. S&A Continuity lamps On. 5. Turn Selector switch to Warhead Arm. a. Power lamps remain On. b. Air lamps remain On. c. Warhead Continuity lamps remain On. d. S&A Continuity lamps remain On. e. Warhead Safe lamps Off. f. Warhead Arm lamps On. 6. Turn Selector switch to Warhead Safe. a. Power lamps remain On. b. Air lamps remain On. c. Warhead Safe lamps On.	ADJUSTMENT METER MAY NOT INDICATE EXACTLY ZERO WHEN SETTING L&M BIAS BUT TENDS TO HUNT ABOUT ZERO POINT. IF METER INDICATES ON SCALE THE SETTINGS ARE SATISFACTORY. 9. Dial position 7. Indicator 7 (M) lamp On. 10. Depress Set pushbutton and release. 11. Depress Adjustment Test pushbutton when Adjustment meter indicates approximately zero. 12. Release Adjustment Test pushbutton when Adjustment meter indicates zero. 13. Slew Displacement to plus 1,000 meters. 14. Slew Velocity to minus 150 meters per second. 15. Dial position 10. a. Indicator 10 (Cutoff Test) lamp On. b. Velocity Brake lamp OFF then ON.	1. Depress 400 cps Power On pushbutton. a. 400 cps Power On lamp On. b. 400 cps Power Off lamp Off. 2. Zero Computer. 3. Dial position 4. Indicator 4 (Indications) lamp On. 4. Concurrent with depressing and holding Displacement Detent button, depress start button for Lateral Calibrator Clock and momentarily hold before Releasing. 5. When clock stops after one hundred seconds, depress start button again and continue to hold Displacement Detent until clock stops. 6. Displacement meter must indicate 0 ± 50 meters. 7. Zero Computer. 8. Dial position H. Indicator H (Calibrate Repeat Power) lamp On. DO STEP 9 ONLY AFTER THE RANGE COMPUTER TEST IS COMPLETE.	6. a. Inform Propulsion Panel operator when air stops venting through the combustion chamber. b. Ignition lamp On, then Off (RF). 7. Disconnect the pressurizing line at the igniter ALC bottle. 9. a. LOX Tank Vent valve closes on missile. b. LOX Tank Vent valve control valve operates and vents air in valve box.	7. Insure that pressure regulator is closed (counterclockwise). DO NOT CONTINUE TEST UNTIL STEP 7 OF HORIZONTAL POWER PLANT COMPONENTS TEST IS COMPLETED. 8. Insure that purge and igniter alc bottle valve is closed, then connect the airhose from the purge and igniter bottle pressurization outlet on the valve box to the thrust controller test box inlet. 9. Connect the airhose from the Thrust Controller Test Box to the thrust controller test probe. 10. Open the PURGE and IGNITER BOTTLE valve (VB). 11. Completely open the REG. INLET and REG. OUTLET valves on the Thrust Controller Test Box. 12. Open the VENT valve on the text box approximately one half a turn.

Table IV—Continued

Test station					Firing area	
Communication console	Propulsion and electrical console	Stabilizer and steering console	Range console	Lateral and program console	Firing section	Servicing section Electrical and pneumatic
	HORIZONTAL POWER PLANT COMPONENTS TEST—Continued	WARHEAD CONTINUITY CHECK—Continued	RANGE COMPUTER TEST—Con.	LATERAL COMPUTER TEST—Con.	HORIZONTAL POWER PLANT COMPONENTS TEST—Continued	THRUST CONTROLLER TEST—Con.
	10. Rotate Valve Test Selector switch to ALC Vent Valve position (TP). 11. Depress Test pushbutton for 2 seconds (TP). Test Power On lamp lights, then goes off (TP). 12. Rotate Valve Test Selector Switch to Press ALC Tank position (TP). 13. Depress Test pushbutton for 2 seconds (TP). Test Power On lamp lights, then goes off (TP). 14. Rotate Valve Test Selector switch to Press LOX Tank position (TP). 15. Depress Test pushbutton for 2 seconds (TP). Test Power On lamp lights, then goes off (TP). 16. Rotate Valve Test Selector switch to LOX Valve Open position (TP). 17. Depress Test pushbutton for 2 seconds (TP).	d. Warhead Arm lamps Off. e. Warhead Continuity lamps Off. f. S&A Continuity lamps Off. 7. Turn Burst Option Selector to Surafce Position (Fully clockwise). a. Power lamps remain On. b. Warhead Safe lamps remain On. c. Surface lamps On. d. Air lamps Off. 8. Turn selector switch to Warhead Continuity. a. Power lamps remain On. b. Warhead safe lamps remain On. c. Surface lamps remain On. d. Warhead Continuity lamps On. 9. Turn selector switch to S&A continuity. a. Power lamps remain On. b. Warhead safe lamps remain On. c. Warhead continuity lamps remain On. d. S&A continuity lamps On.	c. Slew Plus lamp On. 16. Velocity meter must stop at minus 15 ± 2 meters per second. 17. Zero computer. 18. Dial position 4. Indicator 4 (Indications Fine) lamp On. 19. Concurrent with depressing and holding Displacement Brake button, depress Start button for Lateral Calibrator Clock and momentarily hold before releasing. 20. When clock stops after a hundred seconds, depress start button again and continue to hold Displacement Brake button until clock stops. 21. Displacement meter must read between −60 and +75 meters. 22. Zero Computer. 23. Dial position H. a. Indicator H (Calibrate Repeat Power) lamp On. b. Repeat lamp On (RC).	9. Depress 400 cps Power Off pushbutton. a. 400 cps Power Off lamp On. b. 400 cps Power On lamp Off. END OF TEST PROGRAM DEVICE TEST AND RECORD THIS TEST MUST BE RERUN UNLESS THE FIRING TAPE IS USED, AND THE INVERTER FREQUENCY IS WITHIN TOLERANCE. THE RERUN, IF REQUIRED, MAY BE CONDUCTED IN THE VERTICAL POSITION. FOR INSTRUCTION ON THREADING TAPE, REFER TO TM 9–1430–350–14/1. 1. Verify normal indications. a. Forward-Reverse switch in Reverse position (PD). b. Tape reader switch Off (PD).	11. ALC Tank Vent valve closes on missile. 13. ALC Tank Pressurizing valve allows air to enter ALC tank on missile. 15. a. LOX Tank Pressurizing valve opens in Valve box. b. Air escapes through LOX vent valve on missile. 17. Main LOX Valve operates in missile.	USE THE VENT VALVE AS A THROTTLE TO AID IN OBTAINING THE PRESSURE VALUES REQUIRED IN PERFORMING TEST. 13. Adjust the pressure regulator to 20 psi. 14. Allow the test probe and lines to purge at 20 psi for 1–2 minutes. 15. Turn the pressure regulator counterclockwise until closed. 16. Visually check that the transducer sensing port is free of foreign material. 17. Apply a LOX compatible lubricant to the test probe and insert test probe into the transducer pressure sensing port. USE EXTREME CAUTION WHEN INSERTING THE PROBE INTO THE TRANSDUCER SENSING PORT TO PREVENT CUTTING OR OTHER DAMAGE TO THE O-RING.

Table IV—Continued

Test station					Firing area	
Communication console	Propulsion and electrical console	Stabilizer and steering console	Range console	Lateral and program console	Firing section	Servicing section Electrical and pneumatic
	HORIZONTAL POWER PLANT COMPONENTS TEST—Continued	WARHEAD CONTINUITY CHECK—Continued	RANGE COMPUTER TEST—Continued	PROGRAM DEVICE TEST AND RECORD—Con.	HORIZONTAL POWER PLANT COMPONENTS TEST—Continued	THRUST CONTROLLER TEST—Con.
	a. Test Power On lamp lights, then goes Off (TP). b. Main LOX Valve lamp comes On, then goes Off (PP). 18. Rotate Valve Test Selector switch to Main ALC Valve position (TP). 19. Depress Test pushbutton for 2 seconds (TP). a. Test Power On lamp lights, then goes Off (TP). b. Mainstage and main ALC valve lamp On then Off. 20. Rotate Valve Test Test Selector switch to H_2O_2 Main Valve position (TP). 21. Depress Test pushbutton for 2 seconds (TP). Test Power On lamp lights, then goes Off (TP). 22. Rotate Valve Test Selector switch to H_2O_2 Press position (TP). 23. Depress Test pushbutton for 1 second (TP).	10. Turn selector switch to warhead arm. a. Power lamps remain On. b. Surface lamps remain On. c. Warhead continuity lamps remain On. d. S&A continuity lamps remain On. e. Warhead arm lamps On. f. Warhead safe lamps Off. 11. Turn selector switch to warhead safe. a. Power lamps remain On. b. Surface lamps remain On. c. Warhead continuity lamps Off. d. S&A continuity lamps Off. e. Warhead arm lamps Off. 12. Turn Burst Selector Option Switch to air position. (Fully counterclockwise). a. Power lamps remain On. b. Warhead safe lamps remain On. c. Air lamps On. d. Surface lamps Off.	24. Depress 400 cps Power Off pushbutton. a. 400 cps Power Off lamp On. b. 400 cps Power On lamp Off. END OF TEST	c. Reverse lamp On (PD). 2. Insert tape in tape Reader. 3. Turn Program Device Power Switch On (PD). a. Zero lamp On (PD). b. Zero Counters (PD). 4. Unlock drive sprocket pressure device and place against drive sprocket (PR). 5. Turn Tape Reader Switch to Standby (PD). a. Power On lamp On (PR). b. Tape Slack taken up as torque is applied (PR). WAIT UNTIL TAPE TIGHTENS BEFORE GOING TO STEP 6 6. Turn Tape Reader switch to Forward position (PD). a. Exciter lamp ON (PR). b. Tape is pulled forward (PR). c. Reverse lamp Off (PD). d. Zero lamp Off (PD). e. Forward lamp On (PD).	19. a. Main ALC Valve operates missile. b. Mainstage lamp On then Off (RF). 21. H_2O_2 Main valve operates in missile. 23. H_2O_2 Tank Pressurizing valve allows air to enter H_2O_2 tank on missile.	18. Insure the missile inverter is operating. 19. Turn Test Power Switch On (Thrust Controller Box). Power lamp On. 20. Turn the Calibrate Switch On. Valve position meter indicates a minimum of 0.90. IF VALUE IS LESS THAN .90, TURN VALVE POSITION SWITCH ON THEN OFF AND READ METER AGAIN. 21. Turn the calibrate switch Off. 22. Turn the Valve Position Switch On. Valve position meter indicates approximately 0. 23. Determine the existing barometric pressure in psia (this will be needed in step 34). PSIA=BP inches of Mercury X 49. 24. Adjust the pressure regulator to obtain 295 psig on the pressure gage.

Table IV—Continued

Test station					Firing area	
						Servicing section
Communication console	Propulsion and electrical console	Stabilizer and steering console	Range console	Lateral and program console	Firing section	Electrical and pneumatic
	HORIZONTAL POWER PLANT COMPONENTS TEST—Continued 24. Rotate Valve Test Selector switch to Off position (TP). CONTROL OF THIS TEST NOW MOVES TO THE REMOTE FIRING PANEL.	WARHEAD CONTINUITY CHECK—Continued 13. Turn power switch Off. a. Warhead safe lamps remain On. b. Air lamps Off. c. Power lamps Off. END OF CHECK NOTIFY OFFICER IN CHARGE THAT THE CHECK IS COMPLETED		PROGRAM DEVICE TEST AND RECORD—Con. f. Record lamp On (PD). THE FOLLOWING INDICATIONS WILL NOT APPEAR UNTIL TAPE HAS RUN COMPLETELY THROUGH TAPE READER. RUNNING TIME IS ABOUT 6 MINUTES. g. Exiter lamp Off (PR). h. Tape reverses (PR). i. Forward lamp Off (PD). j. Record lamp Off (PD). k. Reverse lamp On (PD). l. Counters start counting after a short delay. RESETTING TIME OF PROGRAM DEVICE IS ABOUT 6 MINUTES. m. Tape runs Off of take up reel (PR). n. Zero lamp On (PD). 7. Turn Tape Reader switch Off. Power On lamp Off (PR).	HORIZONTAL POWER PLANT COMPONENTS TEST—Continued CONTROL OF THIS TEST IS NOW AT THE REMOTE FIRING PANEL. IT IS REQUIRED THAT THE CONTROL OPERATOR ANNOUNCE EACH STEP PRIOR TO PERFORMING THE STEP AND EACH STATION REPORT OPERATION OF VALVE WHEN APPLICABLE. 25. Move LOX Replenish switch to Fill position (RF). a. LOX Replenishing Supply Line Vent valve closes at LOX replenish slip coupling at launcher. b. LOX Tank Replenishing valve opens in missile. c. LOX Replenishing Supply valve opens (Air Servicer). 26. Move LOX Relenish switch to Center position (RF).	THRUST CONTROLLER TEST—Con. DO NOT EXCEED 350 PSIG AT ANY TIME. TURN THRUST CONTROLLER POWER OFF IMMEDIATELY IF PRESSURE DROPS BELOW 275 PSIG. DO NOT LEAVE THRUST CONTROLLER ENERGIZED LONGER THAN NECESSARY. 25. Turn the Thrust Controller Power Switch On. Meter indicates approximately zero (servo valve fully open). 26. Set 305 psig on the pressure gage. Valve position meter indicates from .90 to 1.0 (servo valve closed). 27. Set 295 psig on the pressure gage. Valve position meter indicates approximately zero (servo valve fully open). IF THE FIRING POSITION IS ABOVE 5000, FEET ALTITUDE, USE 310 PSIG IN STEP 26 AND 300 PSIG IN STEP 27

Table IV—Continued

Test station					Firing area	
Communication console	Propulsion and electrical console	Stabilizer and steering console	Range console	Lateral and program console	Firing section	Servicing section: Electrical and pneumatic
	HORIZONTAL POWER PLANT COMPONENTS TEST—Continued			PROGRAM DEVICE TEST AND RECORD—Con.	HORIZONTAL POWER PLANT COMPONENTS TEST—Continued	THRUST CONTROLLER TEST—Con.
				8. Observe and record reading On Counters (PD). Pulse numbers on counters must agree with tape pulse numbers stamped in tape. 9. Depress Reset button (PD). Counters zero (PD). 10. Turn Program Device Power switch Off (PD). Zero lamp Off (PD). 11. Place tape in the storage compartment and install plastic protective cover on Tape Reader Panel. END OF TEST.	a. LOX Replenishing Supply Line Vent valve opens at LOX replenish slip coupling at Launcher. b. LOX Tank Replenishing valve closes in missile. c. LOX Replenishing Supply valve closes (Air Servicer). 27. Move LOX Replenish switch to Drain position (RF). LOX Tank Replenishing valve opens in missile. 28. Move LOX Replenish switch to center position (RF). LOX Tank Replenishing valve closes in missile. 29. Close Bypass valve on Air Servicer. 30. Close Sphere Bypass valve on valve on valve box. 31. Increase output of 3,000 psi regulator to 2,000 psi. (Air Servicer.) 32. Supply pressure gage on Valve box stablizes at 2,000 psi ±50.	28. Increase pressure slowly until the valve position meter begins to move. 29. Decrease pressure until meter stops approximately at mid scale. 30. Increase pressure slowly until meter begins to move. Record this pressure. 31. Decrease pressure until meter stops approximately at mid scale. 32. Decrease pressure slowly until meter again begins to move. Record this pressure. 33. To determine that the thrust controller is serviceable, calculate the differential pressure span by subtracting the lower pressure obtained in Step 32 from the higher pressure obtained in Step 30. If the pressure span is less than 2 psi, proceed to Step 34.
	32. Move Pressurize switch to Pressurize position (PP).					

Table IV—Continued

Test station					Firing area	
Communication console	Propulsion and electrical console	Stabilizer and steering console	Range console	Lateral and program console	Firing section	Servicing section
						Electrical and pneumatic
					HORIZONTAL POWER PLANT COMPONENTS TEST—Continued DO NOT VENT FOR FOR MORE THAN THAT REQUIRED FOR NORMAL INDICATION. 33. Turn Vent switch On (RF). a. Tail Spheres vent. b. Jet nozzle sphere vents. c. Valve box supply pressure gage drops. 34. Turn Vent switch Off (RF). a. Spheres stop venting. b. Valve box supply pressure gage increases to 2,000 psi ± 50. 35. Turn ALC Bubbling switch On, then Off (VB). ALC Bubbling valve opens and closes (VB). 36. Connect P–3221 to J–3221 inside Relay box. 37. Monitor and set, if necessary, the output of regulators during horizontal checkout. a. Control Pressure (As required for missile). b. Jet Nozzle 300 ± 5 psi.	THRUST CONTROLLER TEST—Con. IF DIFFERENTIAL PRESSURE SPAN EXCEEDS 2 PSI, THE THRUST CONTROLLER SHOULD BE REPLACED. 34. Determine the thrust controller pressure by: Adding one-half the differential pressure span (Step 33) to the pressure obtained in Step 32. This is the thrust controller pressure setting from gage measurements. Convert this to absolute pressure by adding the barometric pressure obtained in Step 23. The results must be 317.5 ± 1 psig. 35. If the thrust controller setting as determined in Step 34 is not 317.5 ± 1 psig, adjust the chamber set dial as follows: a. Remove the cover from the computer adapter assembly by removing the 2 screws on top.

Table IV—Continued

Test station					Firing area	
Communication console	Propulsion and electrical console	Stabilizer and steering console	Range console	Lateral and program console	Firing section	Servicing section
						Electrical and pneumatic
	HORIZONTAL POWER PLANT COMPONENTS TEST—Continued				HORIZONTAL POWER PLANT COMPONENTS TEST—Continued	THRUST CONTROLLER TEST—Con.
					c. Air Bearing 31–36 psi if ST–80 mounting bracket is not marked. If bracket is marked, monitor from 1.5 psi below to 3.5 psi above marked valve.	b. Loosen the locking screw on the combustion chamber pressure set dial. c. Adjust the combustion chamber pressure set dial in small increments. A higher reading on the dial will increase the thrust controller pressure setting, and a decreased reading on the dial will lower it. Repeat Steps 27 thru 34 until the desired pressure chamber setting is obtained.
	38. Obtain chart paper from Sequence Recorder and examine indications. Pens should have operated in the following order. Pens 5, 1, 2, 3, 4, 6, 7, 8, and 9.					
	END OF TEST				END OF TEST	d. Tighten the locking screw and replace the safety wire. e. Repeat Steps 27 thru 34 three times to insure that the setting is repeatable and that the dial setting did not change while accomplishing the previous steps. f. Replace the adapter assembly cover and safety wire.
		VANE POSITION METER CALIBRATION CONTROL COMPUTER MUST HAVE AT LEAST 15 MINUTES WARMUP PERIOD, OR 5 MINUTES UNDER EMERGENCY CONDITIONS, BEFORE STEP 3 IS PERFORMED. 1. Insure guidance cutout switch is On (SP).			VANE POSITION METER CALIBRATION	36. Turn the Thrust Controller Power switch Off. 37. Turn the Valve Position Power switch Off. Valve Position meter indicates Zero.

Table IV—Continued

Test station					Firing area	
						Servicing section
Communication console	Propulsion and electrical console	Stabilizer and steering console	Range console	Lateral and program console	Firing section	Electrical and pneumatic
		VANE POSITION METER CALIBRATION–Continued Guidance Signal Off lamp On (SP). 2. Turn rudder drive switch On (SP). 3. Verify that vane position meters indicate zero (SP). IF VANE POSITION METERS DO NOT INDICATE ZERO, ADJUST THE ASSOCIATED POTENTIOMETERS UNTIL METERS INDICATE ZERO. THESE POTENTIOMETERS ARE LOCATED ON THE FRONT OF THE STEERING CONTROL PANEL.			VANE POSITION METER CALIBRATION–Continued 2. Carbon Jet Vane Pointers on Thrust unit indicate zero. IF THE CARBON JET VANE POINTERS DO NOT INDICATE ZERO, ADJUST THE ASSOCIATED BETA POTENTIOMETER UNTIL EACH THRUST UNIT POINTER IS ZEROED. THE BETA POTENTIOMETERS ARE LOCATED ON THE THRUST UNIT SKIN BETWEEN RUDDERS III AND IV. 3. Verify that vane position meters indicate zero (RF). IF VANE POSITION METERS DO NOT INDICATE ZERO, ADJUST THE ASSOCIATED POTENTIOMETERS UNTIL METERS INDICATE ZERO. THESE POTENTIOMETERS ARE LOCATED ON THE SIDE OF THE REMOTE FIRING PANEL.	THRUST CONTROLLER TEST—Con. 38. Turn the Test Power switch Off. Test Power indicator lamp is Off. 39. Close the Purge and Igniter Bottle valve on the valve box. 40. Open the Vent valve on the Thrust Controller Test Box and check that the pressure gage indicates Zero. Allow air to bleed off before proceeding. 41. Rotate the pressure regulator counterclockwise until the handle is free. 42. Close regulator Inlet and Vent valves on the test box. 43. Remove the thrust controller test cable between the tail distributor and the Thrust Controller Test Box. 44. Remove the thrust controller test cable between the servo valve and the Thrust Controller Test Box. 45. Remove the airhose between the test box and the valve box. 46. Remove test probe from the combustion chamber.

Table IV—Continued

Test station					Firing area	
						Servicing section
Communication console	Propulsion and electrical console	Stabilizer and steering console	Range console	Lateral and program console	Firing section	Electrical and pneumatic
		VANE POSITION METER CALIBRATION–Continued 4. Vane position meters may indicate Off of zero (SP). DO NOT ADJUST 5. Vane position meters indicate zero (SP). 7. Turn rudder drive switch Off (SP). END OF TEST			VANE POSITION METER CALIBARTION–Continued 4. Turn the X + 127 and X + 127.5 switches On (FB). a. Vane position meters may indicate Off of zero (RF). DO NOT ADJUST b. Air Vane Pointers on Body unit indicate zero. IF THE AIR VANE POINTERS DO NOT INDICATE ZERO, ADJUST THE ASSOCIATED BETA POTENTIOMETER UNTIL EACH BODY UNIT AIR VANE POINTER IS ZEROED. THE BETA POTENTIOMETERS ARE LOCATED ON THE BODY UNIT SKIN BETWEEN VANES I AND IV. 5. Turn the X + 127.5 switch Off (FB). 6. Turn the X + 127 switch Off (FB). Vane position meters indicate zero (RF). END OF TEST	THRUST CONTROLLER TEST—Con. 47. Replace all missile harnesses disconnected during this test. 48. Remove the airhose between the Thrust Controller Test Box and the test probe. 49. Disconnect P–4005 from the tail distributor. END OF TEST

Table IV—Continued

Test station					Firing area	
Communication console	Propulsion and electrical console	Stabilizer and steering console	Range console	Lateral and program console	Firing section	Servicing section
						Electrical and pneumatic
		CONTROL SYSTEM TEST 1. Verify normal indications. a. Operation Selector switch in Test position (PP). b. Step Switch Zero lamp On (SP). c. Dive Program Zero lamp On (SP). d. Indicator H (attitude signals) lamp On (SC). e. Air Pressure Supply lamp On (SC). 2. Set the Earth Rotation and Pendulum Bias Pots to read 500 (SC). CHECK THAT THE REMOTE CONTROL NULL INDICATOR METER (SC) IS AT NULL POINT BY DEPRESSING THE FINE PUSH-BUTTON (SC) WHEN POSITIONS 3 THROUGH 7 ARE DIALED ON FUNCTION SELECTOR. METER SHOULD NOT DEFLECT OFF SCALE. IF THE METER DEFLECTS OFF CENTER BUT DOES NOT MOVE WHEN POSITIONS 3 THROUGH 7 ARE DIALED, THE RESPECTIVE BIAS POTS MUST BE			CONTROL SYSTEM TEST STAND BY TO ASSIST IN JET NOZZLE TEST WHEN REQUESTED BY TEST STATION.	

Table IV—Continued

Test station					Firing area	
Communication console	Propulsion and electrical console	Stabilizer and steering console	Range console	Lateral and program console	Firing section	Servicing section
						Electrical and pneumatic
		CONTROL SYSTEM TEST—Continued MOVED IMMEDIATELY TO A POSITION THAT CAUSES METER MOVEMENT AND THEN TURNED SLOWLY UNTIL PROPER SETTING IS REACHED. 3. Dial position H through 10 on the Function Selector (SC), and then return function selector to position H. THE FOLLOWING INDICATIONS WILL OCCUR ON THE STABILIZER CONTROL PANEL AS EACH POSITION IS DIALED. a. Position H— Indicator H (Attitude Signals) lamp On. b. Position *1*— Indicator 1 lamp *does not* light. c. Position *2*— (1) Indicator 2 (Program Test) lamp On. (2) Tilt Program Counter reads zero. d. Position *3*— (1) Indicator 3 (Earth Rotation Bias X) lamp On.				

Table IV—Continued

Test station					Firing area	
Communication console	Propulsion and electrical console	Stabilizer and steering console	Range console	Lateral and program console	Firing section	Servicing section
						Electrical and pneumatic
		CONTROL SYSTEM TEST—Continued (2) Remote control Null indicator meter nulls. e. Position *4*— (1) Indicator 4 (Earth Rotation Bias Y) lamp On. (2) Remote Control Null Indicator meter nulls. f. Position *5*— (1) Indicator 5 (Earth Rotation Bias Z) lamp On. (2) Remote Control Null Indicator meter nulls. g. Position *6*— (1) Indicator 6 (Pendulum Bias X) lamp On. (2) Remote Control Null Indicator meter nulls. h. Position *7*— (1) Indicator 7 (Pendulum Bias Z) lamp On. (2) Remote Control Null Indicator meter nulls. i. Position *8*— (1) Indicator 8 (Accelerometer Adjust) lamp On. (2) Accel Angle counter reads zero. j. Position *9*— Indicator 9 lamp does not light.				

Table IV—Continued

Test station					Firing area	
Communication console	Propulsion and electrical console	Stabilizer and steering console	Range console	Lateral and program console	Firing section	Servicing section Electrical and pneumatic
		CONTROL SYSTEM TEST—Continued k. Position *10*— (1) Indicator 10 (Caging) lamp On. (2) Caged lamp On. l. Position H— (1) Indicator H (Attitude Signals) lamp On. (2) Caged lamp remains On (SC). 4. Insure Guidance Cutout switch is On (SP). Guidance Signal Off lamp On (SP). 5. Turn Rudder Drive On (SP). Vane Position meters indicate zero degrees (SP).			CONTROL SYSTEM TEST—Continued 6. Perform Jet Nozzle Test by rotating each air vane 5° plus and minus (Body Vane). The corresponding air jet is activated at 5°±1°. END OF TEST	
INVERTER CALIBRATION INSURE THAT MISSILE INVERTER HAS BEEN RUNNING AT LEAST 30 MINUTES BEFORE STARTING THIS TEST.		7. Turn Rudder Drive Off (SP). END OF TEST				

Table IV—Continued

Test station					Firing area	
Communication console	Propulsion and electrical console	Stabilizer and steering console	Range console	Lateral and program console	Firing section	Servicing section
						Electrical and pneumatic
INVERTER CALIBRATION—Con. 1. Verify normal indications. a. Power On Lamp On (PG). b. Inverter Power Switch On (IC). c. Phase Voltage lamps On (IC). INSURE THAT MISSILE INVERTER PHASES ARE WITHIN TOLERANCE. AB 115±2 volts BC 115±2 volts AC 115±1 volt IF PHASES ARE NOT WITHIN TOLERANCE, THE VOLTAGE CONTROL POT ON THE INVERTER MUST BE ADJUSTED. 2. Place and hold Missile Inverter Frequency Control switch to Increase position until Pot End lamp comes On (IC). 3. Place and hold Missile Inverter Frequency Control switch to the Decrease position. Pot End lamp goes off and comes on again in approximately 64 seconds.						

Table IV—Continued

Test station					Firing area	
Communication console	Propulsion and electrical console	Stabilizer and steering console	Range console	Lateral and program console	Firing section	Servicing section
						Electrical and pneumatic
INVERTER CALIBRATION—Con. 4. Place and hold Missile Inverter Frequency Control switch to Increase position until Fine Pot indicator centers on Missile Inverter. 5. Turn potentiometer control to 5 (IC). 6. Monitor Frequency meter and have the inverter coarse pot adjusted until meter indicator is stopped. (May oscillate or rotate slowly). 7. Rotate the Potentiometer control to the lowest setting that keeps the indicator from drifting in excess of 2 RPM. MONITOR FREQUENCY METER THROUGHOUT CHECKOUT AND OPERATE FREQUENCY CONTROL SWITCH AS NECESSARY TO OBTAIN THE LEAST AMOUNT OF FREQUENCY METER DRIFT. DRIFT MUST NOT EXCEED 2 RPM AT ANY TIME. END OF TEST END OF TABLE IV	END OF TABLE IV	END OF TABLE IV	END OF TABLE IV	END OF TABLE IV	INVERTER CALIBRATION—Con. 4. Monitor Fine Pot indicator and tell Communication Console operator when the screw slot on the indicator alines with the arrow on missile inverter. 6. Adjust the Coarse Frequency pot on the missile inverter as directed by the Communications Console Operator. END OF TEST END OF TABLE IV	END OF TABLE IV

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